

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Digital Audio Broadcasting Systems)	
And Their Impact On the Terrestrial Radio)	MM Docket No. 99-325
Broadcast Service)	

Reply Comments of iBiquity Digital Corporation

iBiquity Digital Corporation (“iBiquity”) hereby submits these Reply Comments concerning AM In-Band On-Channel Digital Audio Broadcasting (“IBOC DAB”) technology. Based on the complete IBOC record before the Commission, iBiquity strongly encourages the Commission to endorse IBOC and iBiquity’s IBOC system and to permit the commencement of digital broadcasts this fall.

I. The Commission Should Endorse IBOC and Authorize Digital Broadcasts

The overall record in this proceeding demonstrates strong and widespread industry support for IBOC as the best means to offer AM and FM broadcasters a digital future. The record also shows that in the past eighteen months IBOC has been transformed from a developing technology into a commercial product awaiting imminent introduction. The public interest will be best served by prompt FCC endorsement of IBOC to support upcoming launch of commercial receiver sales next year.

All segments of the broadcast industry have indicated a need for prompt FCC endorsement of IBOC. Numerous large and small broadcasters, representing stations from throughout the country, as well as the National Association of Broadcasters (“NAB”), have committed to support IBOC and have asked the Commission to authorize digital broadcasts. The

Consumer Electronics Association (“CEA”), as well as individual manufacturers of transmission equipment, semiconductors and receivers, all have voiced their view that IBOC is a reality and that the FCC should support an upcoming IBOC rollout. The comments in this proceeding have repeatedly called upon the FCC to endorse IBOC, endorse iBiquity’s technology and allow digital broadcasts to commence immediately pending adoption of final IBOC rules.

The Commission also has a substantial technical record on IBOC development, its performance in a variety of settings and the upcoming commercial introduction of the iBiquity system. The NRSC reports provided detailed analysis of the functionality and benefits of IBOC technology. The numerous participants in the NRSC process have echoed the NRSC’s conclusions and called for Commission action endorsing IBOC. Most recently, the Commission received confirmation of the commercial introduction of IBOC broadcast transmission equipment and the tremendous domestic and international response to this development.¹ With this record, the Commission can proceed with an endorsement of IBOC confident that this technology is functional, that its benefits for the public are established and that commercial availability of equipment is quickly approaching.

iBiquity has detailed for the Commission its multi-stage commercial introduction of its IBOC system. As was noted above, IBOC transmission equipment was launched earlier this year. This introduction was timed to allow stations to begin digital broadcasts this fall in six rollout markets.² Digital broadcasts in these rollout markets will support the launch of commercial IBOC receivers at the Consumer Electronics Show (“CES”) in January 2003. Launch at CES is necessary for IBOC receivers to appear for retail sale in the Spring of 2003.

¹ Comments of Harris Corporation, June 18, 2002, at 2.

² New York, Los Angeles, Chicago, San Francisco, Seattle and Miami.

Based on this extensive record, iBiquity requests that the Commission endorse IBOC and authorize digital broadcasts this fall to support the introduction of commercial IBOC receivers next year.

II. The Broadcast Industry Supports AM IBOC

The comments provide substantial support for a Commission endorsement of AM IBOC as a daytime service. The NAB noted that its Radio Board recently endorsed prompt Commission action to promote the introduction of IBOC.³ Several major group owners urged the Commission to move forward with implementation of AM IBOC.⁴ These comments repeatedly refer to the NRSC's finding that AM IBOC has the ability to significantly improve the quality and competitiveness of AM broadcasting and that any potential interference IBOC may introduce is more than outweighed by the benefits of digital technology.

The few comments expressing concern about AM IBOC are based in many cases on the mistaken impression that AM IBOC will never be available for nighttime service. This is simply not the case. As iBiquity noted in its comments in this proceeding, the NRSC lacked sufficient data to reach a reliable conclusion about AM IBOC nighttime performance.⁵ iBiquity is working with the broadcast industry to conduct nighttime AM IBOC tests this summer. The results of those tests should be available this fall, leaving sufficient time for an industry endorsement of nighttime service at the same time that commercial IBOC receivers enter the marketplace next year.⁶ However, contrary to the assertions of C. Crane Company,⁷ these studies do not need to

³ Comments of National Association of Broadcasters, June 18, 2002, at 9.

⁴ *See, e.g.*, Comments of Infinity Broadcasting Corp., June 18, 2002.

⁵ NRSC Evaluation at 9 ("No test results were obtained by the NRSC, nor were they requested from iBiquity, on skywave reception.").

⁶ This schedule provides sufficient time for the FCC to develop nighttime AM IBOC rules at the same time it adopts final rules and policies for both AM daytime and FM IBOC.

be completed prior to commencement of digital broadcasts. Because the proposal before the Commission at this time only involves daytime AM service, information about skywave propagation is irrelevant to the Commission's analysis of daytime operations.⁸

The other comments expressing concern about AM IBOC in essence argue that AM broadcasters should be relegated to the analog world with no digital future. This is not a credible argument in a world where all other analog radio services are migrating to a digital future. No commenting party has offered any proposal for spectrum to implement an out-of-band solution. Similarly, requests for a new commitment to AM stereo do not offer AM broadcasters a credible alternative to the current problems they confront.

iBiquity also disagrees that there is any need for further investigation of the impact of limiting analog broadcasts to 5 kHz. Reduction of channel bandwidth is necessary for proper operation of the IBOC system. Because most radios have reduced the audio bandwidth of the AM receiver to less than 3 kHz, this reduction in channel bandwidth will be inaudible to the vast majority of listeners.⁹ Moreover, it is important to note this requirement only applies to stations that opt to implement IBOC. Any station that is concerned about analog bandwidth has the option to not implement IBOC; thus, approval of IBOC does not mandate any reduction in a particular station's bandwidth. Moreover, at least one member of the NRSC restricted the analog

⁷ Comments of C. Crane Company, June 13, 2001.

⁸ National Public Radio suggests that the Commission conduct tests of AM nighttime operations. iBiquity believes the existing process for industry evaluation of IBOC has been efficient and useful and should provide the Commission with sufficient information to endorse nighttime AM IBOC without the need for the Commission to devote its limited resources to conducting IBOC tests.

⁹ See NRSC Evaluation at 8 (“[T]he audio bandwidth of most AM receivers has been reduced to less than 3 kHz – as shown by the receiver characterization tests performed during this test program.”).

bandwidth on an existing commercial AM station without implementing IBOC. This broadcaster concluded the change *improved* the station's audio quality.¹⁰

iBiquity is pleased to have received substantial endorsements of its AM IBOC technology. iBiquity believes authorization of daytime AM IBOC will advance the public interest by allowing IBOC to move forward while nighttime performance is analyzed. iBiquity remains confident that AM IBOC will be able to meet the daytime and nighttime needs of AM broadcasting, but an interim daytime approach will help advance the overall introduction of IBOC.

III. iBiquity Supports Clear Channel's Proposal on AM IBOC Power

iBiquity is comfortable with Clear Channel's recommendation that the Commission adopt a conservative approach for AM IBOC pending development of final IBOC rules. Clear Channel has expressed concern that the introduction of AM IBOC by a station with first adjacents that have significant contour overlaps may cause some degradation in analog quality to the first adjacent stations. iBiquity has discussed this issue with Clear Channel and is planning additional studies to quantify the scope and magnitude of any potential impact. iBiquity plans to have this work completed in time for the Commission to factor this information into the development of final IBOC rules.

iBiquity agrees with Clear Channel that development of this additional information should not impede the immediate authorization of AM IBOC broadcasting. Clear Channel's proposal to reduce the power level of the primary digital carriers by 6 dB pending development of final IBOC rules will ensure there is no interference from AM IBOC to any adjacent channel stations, even in those areas of significant contour overlap. Although this reduction in power

¹⁰ iBiquity is puzzled by C. Crane's concern about this issue. C. Crane representatives have informed iBiquity that C. Crane radios use very narrow filters and will have no impact from reduced analog bandwidth.

will reduce digital coverage somewhat, adoption of this conservative approach during the relatively brief period before completion of final rules will ensure IBOC does not impact analog operations. After completion of additional studies, iBiquity will provide the Commission with a more comprehensive proposal for final IBOC power levels for those stations that have a risk of causing adjacent channel interference. In the meantime, AM IBOC can be introduced while minimizing any risk of interference to existing stations.

IV. iBiquity Will Comply with the FCC's Patent Policy

iBiquity will comply fully with the Commission's policies for patented technology incorporated in standards.¹¹ Some commentators have raised concerns about iBiquity's requirement that broadcasters pay a fee for licensing iBiquity's patents and other intellectual property. No comments, however, have provided any precedent where the Commission has regulated these types of fees. iBiquity has invested many years and considerable financial resources developing its technology and holds numerous patents pertaining to both AM and FM IBOC. iBiquity intends to conduct its license discussions with broadcasters in a commercially reasonable fashion and fully consistent with the Commission's requirements. It would be inappropriate for the Commission to interject itself into these commercial licensing discussions.

V. Conclusion

Although this proceeding contains a voluminous docket compiled over several years, the input to the Commission this year has been consistent and can be succinctly summarized. All components of the broadcast industry support IBOC as the digital future for terrestrial radio. IBOC has been transformed from a development project to a reality, and we are on the brink of

¹¹ See Revised Patent Procedures of the Federal Communications Commission, Public Notice (Dec. 1961), reprinted in 3 FCC 2d (1966). The intellectual property licensing policy articulated in the FCC's Patent Policy is similar to most other intellectual property licensing policies used today by standard setting organizations.

commercial implementation of this important technology. It is now up to the Commission to provide an endorsement of AM and FM IBOC.

For the foregoing reasons, iBiquity Digital Corporation respectfully encourages the Commission to immediately endorse AM and FM IBOC and authorize the commencement of digital broadcasting pending development of final IBOC rules.

Respectfully submitted,

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